**ABSTRACT**

A method of and apparatus for single antenna interference rejection (SAIR) relaxation. Interference in a received signal is reduced by performing synchronization and whitening of the received signal. The synchronization and whitening includes performing the following steps at least one time: 1) performing a synchronization and vector-noise-correlation estimation of an input signal to yield an interference model; and 2) performing a spatio-temporal whitening operation using the interference model and the input signal to yield an updated received signal. The input signal is the received signal when the step of performing the synchronization and vector-noise-correlation estimation is performed a first time. The input signal is the updated received signal when the step of performing the synchronization and vector-noise-correlation estimation is performed following the first time.